

# BoF: Open Source Fleet and Device Management

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# About Me and Pengutronix

- “CTO” at Pengutronix since 2012
- co-maintainer of FOSS RAUC (system update) and labgrid (testing framework)



- Embedded Linux consulting & support since 2001
- ~ 6000 patches in Linux kernel

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# Device Mgmt

- Device Identity
- Backend Communication
- Monitoring and Debugging
- Life-Cycle
  - Provisioning/On-Boarding
  - ...
  - End-of-life
- Secure Tunnel

# Fleet Mgmt

- Scheduled Updates
- Alerting
- Integrations with:
  - Databases
  - WAN Networks (LoRa, ...)
- User/Device Authentication



**Add your topics and vote here:**

Link is also in the abstract  
for this talk at  
<https://osseu2022.sched.com>



# FOSS Projects

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- ThingsBoard (12.3k 🐙 ★)
- Mainflux (1.9k 🐙 ★)
- OpenWISP (955 🐙 ★)
- SiteWhere (909 🐙 ★)
- OpenRemote (629 🐙 ★)
- Astarte (187 🐙 ★)
- Mender Server (71 🐙 ★, Open Core)



# Commercial Platforms

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- AWS IoT Device Management
- Azure IoT Hub
- Google IoT Core (will be retired)
- Balena
- ThingSpeak (by MathWorks)
- Thinger.io
- iot-suite.io
- goliath.io (focused on  $\mu$ Cs)
- blynk.io (focused on  $\mu$ Cs and apps)

